

IN THE CLAIMS

Please cancel claims 1-31. Please enter new claims 32 through 64.

1-31. (Canceled)

32. (New) A method for determining points of disturbance in a fibrous planar structure produced within a textile machine, the method comprising of the steps of:

- moving the planar structure relative to a plurality of photodiodes arranged in a line carried within a measuring device;
- measuring optically the brightness of reflected light from the planar structure using the photodiodes;
- detecting areas of the planar structure having brightness values above a pre-determined threshold brightness value;
- measuring the extent of surface size of the areas having the brightness values above the pre-determined threshold brightness value; and
- classifying the areas having the brightness values above the pre-determined threshold brightness value as points of disturbance in the planar structure based on the extent of surface size of the areas of such brightness values.

33. (New) A method as in claim 32, wherein the textile machine producing the planar structure is a card having a doffer.

34. (New) A method as in claim 33, wherein the extent of surface size of the areas having the brightness values above the pre-determined threshold brightness value is determined by the number of responding photodiodes and the duration of time the photodiodes detect the area of such brightness values.

35. (New) A method as in claim 33, wherein a small surface size of the area of the planar structure having the brightness value above the pre-determined threshold

brightness value is classified as a point of disturbance and large surface sizes as permissible brightness fluctuation within the planar structure.

36. (New) A method as in claim 33, further comprising calculating an average brightness value for the planar structure.

37. (New) A method as in claim 36, further comprising calculating the threshold brightness value by multiplying the average brightness value by a factor number.

38. (New) A method as in claim 36, wherein the average brightness value calculated by taking the average of measurements of all the photodiodes within the measuring device.

39. (New) A method as in claim 38, wherein the measurements used for calculating the average brightness value are the overall voltages of the photodiodes signal.

40. (New) A method as in claim 36, wherein the average brightness value is calculated over a period of time corresponding to a predetermined distance the planar structure travels.

41. (New) A method as in claim 40, wherein the predetermined distance is 5mm.

42. (New) A method as in claim 40, wherein the period of time is dependent on the speed of the doffer.

43. (New) A method as in claim 33, wherein signals from the photodiodes representing brightness values are individually examined against the threshold brightness value.

44. (New) A method as in claim 43, wherein the length of an area of the planar structure having a brightness value above the threshold brightness value is determined by the speed of the doffer and the time period during which the photodiodes signal exceeds the brightness value.

45. (New) A method as in claim 44, wherein the width of the area of the planar structure having a brightness value above the threshold brightness value is determined by adding the width of adjacent photodiodes' coverage of the planar structure which detect areas having brightness values above the threshold brightness value at the same time.

46. (New) A method as in claim 45, wherein the extent of the surface size of the area of the planar structure having a brightness value above the threshold brightness value is calculated by multiplying the determined length and width of the area of the planar structure having a brightness value above the threshold brightness value.

47. (New) A method as in claim 46, wherein the surface size of the area of the planar structure having a brightness value above the threshold brightness value that exceeds a predetermined surface size is not considered a point of disturbance.

48. (New) A method as in claim 47, wherein the predetermined surface size is 4mm^2 .

49. (New) A method as in claim 33, wherein the detection of a brightness value solely by an outer photodiode in the arranged line of photodiode is not considered a point of disturbance.

50. (New) A method as in claim 33, wherein the signals received by the measuring device from the photodiodes is amplified.

51. (New) A method as in claim 33, wherein the area of the planar structure being measured for brightness is illuminated from one side.

52. (New) A method as in claim 33, wherein the area of the planar structure being measured for brightness is optically magnified.

53. (New) A method as in claim 33, wherein the measuring device carries a plurality of measuring heads with each measuring head carrying a plurality of photodiodes which the measuring heads control.

54. (New) A method as in claim 53, wherein the measuring device carries a central processor which is in communication with each measuring head, the central processor allowing the measuring heads to communicate with one another for parameter settings, status inquiries and determination of a point disturbance.

55. (New) A device for determining points of disturbance in a fibrous planar structure produced within a textile machine, said device comprising:

a plurality of measuring heads carried within said textile machine, said measuring heads positioned to collect information about said fibrous planar structure as said planar structure moves past said measuring heads within said textile machine;

a plurality of photodiodes arranged in a line perpendicular to the machine direction of said textile machine and carried within each of said measuring heads, said photodiodes measuring optically a brightness of reflected light from said planar structure and communicating with said measuring head within which said photodiodes are carried; and

a central processor connected to each of said measuring heads through data lines, said central processor working in conjunction with said plurality of measuring

heads containing said plurality of photodiodes to detect areas of the planar structure having brightness values above a pre-determined threshold brightness value, measure the extent of surface size of said areas and classify said areas as points of disturbance in the planar structure based on the extent of surface size of said areas.

56. (New) A device as in claim 55, wherein said measuring heads are connected to said central processor via a parallel bus for reporting said points of disturbance.

57. (New) A device as in claim 55, wherein said measuring heads are connected to said central processor via a serial bus for parameter setting and status inquiry.

58. (New) A device as in claim 55, further comprising lenses disposed within each of said measuring heads between said photodiodes and said planar structure being measured, said lenses magnifying said planar structure as it moves past said photodiodes.

59. (New) A device as in claim 55, further comprising a light carried within each of said measuring heads, said light illuminating said planar structure in a zone where said photodiodes inspect said planar structure.

60. (New) A device as in claim 59, wherein said light are positioned in each of said measuring heads so as to shine on said planar structure at a 45° angle.

61. (New) A device as in claim 59, wherein said lights are IR diodes.

62. (New) A device as in claim 55, wherein said textile machine is a card having a doffer for removing said planar structure from a tambour of said card.

63. (New) A device as in claim 63, wherein said plurality of measuring heads are positioned within said card to collect information about the planar structure as it is being moved by said doffer over the width of said doffer.

64. (New) A device as in claim 55, further comprising a daylight filter carried within each of said measuring heads between said photodiodes and said planar structure being measured, said filter filtering out stray light that enters said photodiodes.